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ABSTRACT

Using 20 comparative research studies, this paper compares advantages and disadvantages of family day care and center care. The results are discussed in terms of (1) the effects of family day care and center care on the intellectual, emotional, social, and physical development of young children and their parents; (2) the environmental differences between the two types of care; and (3) the implications for parents. For the most part, these research reports are contradictory and inconclusive, and only two rather weak trends are discerned. When differences between family day care and center care children are reported on measures of cognitive and motor performance, the results tend to favor center day care. On the other hand, studies reporting differences in emotional development tend to favor family day care. No consistent pattern of differences favoring either type of care emerges from studies of social behavior or physical growth and health. The environmental differences between the two settings are generally consistent with the two trends in studies reporting differential effects on the participants. Overall, on the basis of present evidence, no strong argument can be made for the superiority of either type of care. The paper concludes that center care and family day care are both viable options for parents who need out-of-home care for their children and that the most important consideration in comparing child care arrangements is the quality of care. The report concludes with a five-page bibliography. (Author/DST)

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Which Is Better for Young Children - Family Day Care or Center Care?

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Abstract

Advantages and disadvantages of family day care and center care are summarized from 20 comparative research studies. The results are discussed in terms of (1) the effects of family day care (FDC) and center day care (CDC) on the intellectual, emotional, social and physical development of young children and their parents; (2) the environmental differences between the two types of care; and (3) the implications for parents.

For the most part, research reports are contradictory and inconclusive. Only two rather weak trends were discerned in the research reports. When differences between FDC and CDC children are reported on measures of cognitive and motor performance, the results tend to favor CDC type care. On the other hand, studies reporting differences in emotional development tend to favor FDC type care. No consistent pattern of differences favoring either type of care emerged from studies of social behavior or physical growth and health.

The environmental differences between the two settings are generally consistent with the two trends in studies reporting differential effects on the participants. Apparently, CDC facilities provide an environment which is more stimulating for cognitive and motor development, while FDC settings are more conducive to emotional security. Overall, however, on the basis of present evidence no strong argument can be made for the superiority of either type of care.Center day care and family day care are both viable options for parents who need out-of-home care for their children. The most important consideration in comparing child care arrangements is the quality of care.

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The utilization of nonparental care for infants and young children has risen dramatically in recent years and is likely to increase in the future (Hoffereth, 1979). A question frequently asked by parents and researchers is which type of out-of-home child care is best. Is a child care center preferable to a family day care home or vice versa? Very strong opinions have been expressed in response to this question with advocates of family day care homes becoming adversaries of people who prefer center care (Willis, 1978). Unfortunately, little systematic empirical data has been made available to day care consumers on the effects and characteristics of family day care homes as compared with day care centers.

During the past 15 years a rather extensive number of research studies on the effects of day care on infants and young children have been published. This body of literature has been well reviewed in several substantive papers (e.g. Belsky, 1980, 1984; Belsky and Steinberg, 1978, 1982; Etaugh, 1980; Fein and Clarke-Stewart, 1983; Kilmer, 1979; and Rutter, 1981). However, the results of studies comparing center day care with family day care have been overshadowed by the attention devoted to the overall impact of day care.

The purpose of this review is to summarize existing research studies which have compared (1) the effects of family day care and center day care on the intellectual, emotional, social, and physical development of young children and their parents; and (2)

the ecological differences between the two types of care. The implications of the research findings for parents will also be explored.

A concerted effort was made to identify and review all available studies which included camparisions of the effects of family day care and center day care, plus studies providing information about ecological differences between the two types of care. A total of 20 studies on family day care (FDC) and center day care (CDC) were identified. Fourteen of the studies compared the effects of two or more types of care on the participants, including FDC and CDC. Three studies compared both effects and ecological charcateristics, while two studies were limited to information about environmental differences between the two types of care. One additional study compared the effects of different types of care on parents. Since the reports mainly included comparisons between FDC and CDC facilities, the summary of the results will be limited to those two types of care.

Due to the relatively small number of studies available, no attempt was made to eliminate any report on the basis of problems in the research design. Consequently, before summarizing the results of the research reports, it is important to consider the methodological weaknesses which limit the conclusions and generalizations that can be made from existing studies comparing FDC and CDC.

Limitations of Available Studies

Comparability of Groups

Critics of research studies on the effects of day care (Belsky and Steinberg, 1978) have noted that families who use daycare may differ from families who do not use day care. A similar problem is presented in studies comparing the consequences of different types of day care. Families who elect to place their children in a family day care home may differ in important ways from families who utilize center type care. Unless random assignment of children to various types of care is used, the effects of different day care experiences cannot be completely separated from possible differences is home background.

None of the studies included in this review were laboratory experiments which could use randomized treatment procedures. The difficulty of obtaining the cooperation of families and caregivers, especially day care providers, also apparently prevented the use of completely randomized selection procedures to obtain groups of subjects from different types of care (e.g. Winet, Fuchs, Moffatt, and Nerviano, 1977). Typically, subjects for center type care were recruited through the day care facilities, while family day care subjects were recruited through parents or multiple strategies. Consequently, the comparability of subjects in different day care situations may be questionable because of selection bias as well as family differences which may operate independent of their day care experiences.

Comparability of Quality

A second major problem is determining the extent to which the FDC and CDC settings included in the studies are comparable in quality of care. With the exception of the studies specifically

designed to assess ecological differences between the different types of care, information about the quality of the day care settings was very limited in the reports. It appears that most of the researchers at least selected subjects from the same category of facilities within each type of care, e.g. agency sponsored homes versus agency sponsored centers. However, in a few instances (e.g. Portnoy and Simmons, 1978; Everson, Sarnat, and Ambron, 1984) the child care facilities represented a variety of program operators (e.g. private-for-profit, publically supported, licensed and unlicensed). Generally the studies reported more information about the day care centers than the day care homes. As Ricutti (1976) has pointed out, the results of studies on the effects of FDC versus CDC tend to be relatively uninterpretable without specific information about the environments compared.

Restriction of Sample

An additional problem with existing research studies is that they do not adequately represent the kind of FDC and CDC facilities utilized by most families in the United States. Approximately 94% of all FDC takes place in informal unregulated arrangements (Fosberg, 1981), and more than one half of CDC care is provided in facilities which are categorized as private-for-profit businesses (Clarke-Stewart, 1982). While studies comparing FDC and CDC outcomes have avoided atypical university based research settings, the majority of studies have been conducted in facilities which are agency sponsored/monitored and represent better-than-average programs. Thus, until researchers solve the problem of identifying and gaining access to

"garden-variety" facilities, the generalizability of the results of day care studies will remain somewhat limited.

Summary of Results

A brief synopsis of each study reviewed in this report is presented in Table 1. The results will be discussed in terms of the comparative effects of CDC and FDC on the intellectual, emotional, social, and physical development of the children who participated. Ecological comparisons between the two types of care will also be summarized.

Insert Table 1. about here.

Intellectual Development

Ten of the 20 studies reviewed in this report included comparisons between CDC and FDC on one or more measures of intellectual functioning, including language development. Five of the ten studies (Clarke-Stewart, 1984; Golden, Rosenbluth, Grossi, Policare, Freeman, and Brownlee, 1978; McCartney, Scarr, Phillips, Grajik, and Schwarz, 1982; Saunders and Keister, 1972; and Vroegh, 1976) reported that children in CDC facilities scored higher on assessments of intellectual performance than FDC children on cognitive performance. Only one study (Fiene, 1973) favored FDC type care (quantity and complexity of language).

In their substantive review of the literature on the effects of early childhood programs, Fein and Clarke-Stewart (1983) concluded that children in center programs have consistantly scored higher than children in home day care programs in studies

TABLE 1. COMPARATIVE EFFECTS AND CHARACTERISTICS OF CENTER DAY CARE AND FAMILY DAY CARE

AUTHOR & DATE	SUBJECTS	DEPENDENT VARIABLES	SUMMARY: FINDINGS AND CONCLUSIONS	COMMENTS
1. Saunders & Keister (1972)	22 Total - (Infants tested at 3 mos. and subsequent intervals to 3 years) 12 Family day care (FDC) 10 Center day care (CDC)	Cognitive, social and motor development	A large percentage of infants in FDC showed losses over a two year period in mental development (33%), motor development (42%), and social development (50%). In contrast, a large percentage of CDC infants attained increases in mental, social and motor development scores.	No tests of statistical significance between groups reported. Social class was not controlled. FDC infants experienced notable discontinuity of care.
2. Fiene (1973)	48 Total - (36 - 40 mos.) 16 CDC 16 FDC 16 NDC	Frequency and complexity of verbalizations	Greatest number of complex verbalizations were produced in FDC, the lowest number in CDC. Frequency of verbalizations varied according to activity area, with dramatic play and free play areas eliciting more complex verbalizations in FDC than CDC, while block and art areas had relatively little verbalizing in both settings. Results are attributed partially to teaching style variations, staff/child ratios and curriculum objectives.	Subjects were matched for age, sex, race, IQ. Apparently CDC facilities were matched for staff, program structure, scheduling and planned activities; FDC facilities were also matched for similar factors. If necessary, experimenter manipulated home environment to arrange well defined activity areas, e.g. art, blocks, free play.
3. Lippman & Grote (1974)	198 (4 yr. olds) 105 CDC 92 FDC 85 NDC	Social, emotional characteristics	FDC, CDC, and NDC children did not differ in peer orientation and self-care. FDC was associated with more cooperative behavior, curiosity and delay of gratification.	FDC homes were licensed by state of Washington. Approximately one-half of the centers were proprietary while others were nonprofit. Subjects were matched on race, sex, no. of parents in home, no. of sibs and mother's educ.
4. Strangert (1976)	207 Total - (6 mos. - 2 yrs.) 108 CDC 42 FDC 57 NDC	Respiratory illness	No difference between FDC and CDC infants on incidence of respiratory infections. Both day care groups had more illnesses than the NDC group.	Study conducted in Sweden.

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5. Vroegh (1976)	114 Total - (12 - 36 mos.) 47 FDC 67 CDC	Motor development Cognitive development Temperamental behaviors	CDC children were rated superior to FDC children in motor development and comprehension-conceptual performance. FDC children had higher compliant and likeable ratings.	Both FDC (8) and CDC (1) programs were sponsored and subsidized by a community child-care coordinating council. Subjects were rated by caretakers.
6. Cochran (1977)	120 Total - (12 - 18 mos.) 60 CDC 26 FDC 34 NDC	Caregiver-child interactions Intellectual development Reaction to Separation	No differences between CDC & FDC on mental development or reactions of infants to maternal separation. NDC & FDC subjects explored surroundings more, interacted more frequently with caretakers in cognitive-verbal situations, and were carried more frequently. Play experiences were more frequent in CDC group.	Report on Phase I of a longitudinal study conducted in Sweden. (See Gunnarson for report on Phase II.)
7. Winett, et al (1977)	124 Total - (3 - 5½ yrs.) 35 CDC 15 FDC 43 NDC 31 Mixed (FDC/CDC)	Intellectual, language, & social development	FDC & CDC children did not differ significantly on any of the variables. The mixed care group scored higher on intellectual ability. Quality of care ratings for centers were not related to children's scores.	Authors note that differences may possibly be due to higher SES of mixed group. Day care facilities were reported to be comparable to those found in many communities. Quality ratings for day care homes were not reported.
8. Doyle & Somers (1978)	39 Total - (Av. age = 22 mos.) 14 CDC 11 FDC 14 NDC	Mother-child attachment Intellectual and language development	No differences between CDC and FDC infants on attachment behavior. Both day care groups were less upset than home reared subjects by mother child separation. No differences between groups on measures of intellectual and language development.	Study conducted in day care facilities in rural Nova Scotia. Social class and other variables were controlled. Staff-child ratios indicate good quality care, but FDC was higher (1:2.3) than CDC (1:4 for younger children and 1:7 for older children)

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9. Golden, et al (1978)	Longitudinal sample: Beginning total = 437 infants from day care centers and family day care homes. Sample size varied overtime. Effects were examined at 18 mos. and 36 mos. of age. 18 month sample = 107 CDC 142 FDC 69 NDC 36 month sample = 87 CDC 94 FDC 78 NDC	Child measures: Intelligence, language, social competence, emotional functioning, cognitive style, physical growth and health Family measures: Impact of day care on families Children's daily experiences: Health care Safety Nutrition Materials, equipment Play space caregiver behavior	CDC and FDC infants did not differ on cognitive, language, social and emotional ratings at 18 and 36 months, except at 36 months the CDC subjects scored higher on an IQ test than FDC and NDC subjects. CDC and FDC children did not differ on health or physical growth, but FDC subjects tended to be healthier and larger than NDC subjects at 36 months. No difference between CDC and FDC in impact of day care on families. FDC children received more individual attention than CDC subjects, but no differences in quality of caregiver behavior between groups. CDC programs were rated superior to FDC on immunizations of children, nutrition provided, play materials, equipment and space. FDC facilities had more indoor safety hazards, but no differences in safety practices by caregivers.	Day care centers were community based, publicly supported programs. Family day care homes were licensed but not as closely monitored. Centers had more resources, support and supervision. Control subjects (NDC) were cross-sectional groups of children who were identified as they entered day care facilities. CDC and FDC were assessed prospectively while NDC were assessed retrospectively.
10. Gunnarson (1978)	101 Total - (5½ yrs.) 33 CDC 34 Home (FDC, NDC & part-time play group) 34 Mixed (both home & center)	Social interaction patterns Mental development: Locomotor Personal-social Hearing & speech Eye hand coordination Performance and practical reasoning	No differences between groups on any variables Neither homes (including FDC) or centers were established as superior or inferior in promoting the overall development of children. Sex differences were more pronounced than differences between child care environments. Findings were not qualified by family structure.	Phase II of a longitudinal study conducted in Sweden (See Cochran). FDC subjects were apparently grouped with other home care subjects for comparison with CDC groups thus confounding the results.

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13. Prescott (1978) (See also Prescott 1973 and Prescott & Jones, 1967)	112 Total - (2 to 5 yrs.) 84 CDC 14 FDC 14 Mixed (own home & part-time nursery school)	Environmental characteristics and experiences: Initiation and termination of activity segments Group size and age composition Caregiver-child interactions Materials and equipment	FDC and mixed groups had highest frequency of following: child initiated attention to adults, adult facilitation, incidences of children receiving help, thrusting behaviors (physical activity, playful intrusion, help seeking, etc.), access to privacy, "soft" materials and equipment (pillows, carpets, laps, etc.), exposure to visitors, heterogenous age grouping. FDC and mixed groups were lowest in: adult controlled activities, time spent in transition, emphasis on rules, categories of distress (frustration, rejection, and tentative behavior), and group size. Overall conclusions: FDC is superior to CDC in providing a home-like, and therefore more favorable environment for child care.	Centers had "reputation for good quality care, day care homes were participating in a demonstration family day care project, and therefore above average in quality. Conclusions about FDC environments are probably not generalizable to typical FDC settings.
14. Steinberg & Green (1979)	109 Total (Mothers of children 2 - 3½ yrs.) 52 using CDC 38 using FDC 19 using home care (babysitter)	Effects of day care on parents: Education for child-rearing Parent-child relationship Satisfaction with care-giving arrangement	CDC mothers reported: becoming more knowledgeable as parents, feeling less harried, finding more joy in parenting, and improvement in parent-child relationships. FDC mothers were happier with discipline provided and childrearing values of the caretaker. In general, utilising center care appears to have the most positive effect on parents, while using a sitter in the home the least.	Quality of day care facilities was not compared. Parents experienced only one type of care.
15. Schiller (1980)	90 Total - (3 - 5 yrs.) 39 CDC 26 FDC 25 Mixed (½ day preschool & home)	Ego-resiliency and ego-control	No differences were found between FDC and CDC groups on ego functioning. (Mixed group comparison was not reported). See Schiller, p. 78 for other findings on sex, age of entry, length of care, etc.	Centers were privately operated, apparently of good quality. Information on variation in characteristics was included. Information on day care homes was not reported. Interobserver (teacher ratings) reliability ratings were relatively low but were supported by parent-attitude data.

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11. Howes & Rubenstein (1978a, 1978b)	40 Total - (18 - 22 mos.) 20 CDC 20 FDC	Peer social behavior and interactions Social interactions (competency) with caregivers: conversation, sharing, proximity seeking, positive affect, negative affect, conformity to rules. Ecological comparisons: Caregiver social behavior directed to toddlers Caregiver characteristics: training, non-caregiving activities Group size, staff/child ratio	No significant differences in frequency or complexity of peer play interactions. Both toddler talk to peers and peer talk to toddler was significantly higher in FDC. Only one significant difference in toddler behavior directed to caregiver: FDC subjects rated higher in verbal (conversational) behavior. Similarities exceeded differences. Caregiver behavior similar in both settings, except FDC caregivers were more restrictive and negative. FDC groups were smaller, heterogeneous. Staff/child ratios were similar. FDC caregivers did more housework during caregiving hours, were more isolated from other adults and worked longer hours. CDC caregivers had more formal training but less experience as mothers. CDC facilities had more large, nonportable play objects.	Day care facilities were community based. Within groups comparisons on quality factors were nor reported. Time in day care ranged from 4 to 17 mos. Authors point out that greater frequency of toddler talk to peers in FDC group might have been a function of the presence of older children in FDC settings.
12. Portnoy & Simons (1978)	35 Total - (3½ - 4 yrs.) 12 CDC 11 FDC 12 NDC	Mother-child attachment behavior	No significant differences in attachment behavior between groups. No differences were found between care groups and SES. All children were from two parent families.	Centers were reported as reflecting a wide variety of sponsorship, program, and child/staff ratio. No information on family day care homes. The Ainsworth Strange situation used to measure attachment behavior has been questioned as a valid procedure for use beyond the age of 18 mos.

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16. Tyler & Dittman (1980)	25 Total (Average age = 18 mos.) 10 CDC 15 Home care (12 FDC & 3 NDC)	Caregiver-child interactions	More verbal exchanges were observed among caregivers and toddlers in home settings. Children in home care expressed more emotionality and fewer self-comforting habits (thumbsucking, etc.) than CDC children. However, authors concluded that neither setting provided optimal care to meet toddler's growing need for independence and stimulation.	FDC subjects were grouped with NDC for comparisons with CDC groups. Since there were only 3 NDC subjects included, the study is presented here in the interest of a comprehensive literature review. Information on other indicators of quality was not reported.
17. Goodman & Andrews (1981)	128 Total (30 - 48 mos.) 68 CDC 52 FDC 8 FDC (Controls - no exp. intervention)	Cognitive performance as assessed by the Peabody Picture Vocabulary, Caldwell Preschool Inventory, & Basic Concepts Inventory	FDC children exposed to educational programs showed greater gains in cognitive functioning than CDC children who did not receive the educational component.	Educational intervention program was in effect for 10 mos., with subjects each receiving a total of approx. 80 hours. FDC & CDC facilities were sponsored by social services agency. SES was apparently informally controlled
18. McCartney, et al (1982)	156 Total - (36 - 60 mos.) Enrolled in various forms of day care (FDC, CDC, sitter) for 6 months or more. (FDC and CDC group sizes not reported)	Intellectual, language emotional and social development	Children enrolled in CDC as infants were rated as more emotionally maladjusted than children cared for by sitters or in FDC as infants and who began center care at later ages. No differences were found between CDC and FDC subjects on intellectual, language or social development, except children enrolled in good quality CDC care in early infancy scored higher on language and intellectual development.	Information on data analysis for CDC and FDC group comparisons was not presented. Study was conducted from a retrospective approach using facilities in Bermuda.

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19. Clarke-Stewart & Gruber (1984) See also Fein & Clarke-Stewart, 1983).	150 Total (2 - 3 yrs.) Groups = CDC, FDC, Nursery Schools, In-home sitters	Language skills, manipulative abilities, perceptual abilities.	Subjects exposed to any type of center care scored higher on language, manipulative and perceptual abilities than home care with sitter, FDC or NDC.	Day care facilities were reported to be of "average" quality, representing 63 different settings.
		Mother-child attachment	Full time CDC infants displayed more aloofness and emotional detachment from mothers than infants exposed to other types of care.	Results may be attributed "Transient Distress Syndrome" since infants had been in care less than six months. But investigator attributes results mainly to experience at home.
		Social competence and cooperation	Nursery school group scored higher on social competence than FDC infants who scored higher than CDC and NDC infants. FDC subjects scored lower on cooperation and prosocial behavior with adults than CDC and other care groups.	
20. Everson, Sarnat & Ambron (1984)	217 Total (12 - 24 mos.) 55 CDC, 62 FDC, 100 NDC	Social responsiveness, cooperation and compliance. Distress during frustration. Willingness to help & share. Problem solving effectiveness, persistence and enthusiasm. Self-regulatory speech.	FDC & CDC groups did not differ significantly on any measure of social behavior, a wide variety of demographic variables, or maternal attitudes toward day care. Day care (FDC & CDC combined) subjects differed from NDC group on sharing behavior according to maternal attitude toward day care.	Wide variety of demographic variables controlled. CDC facilities represent wide variety of operators (e.g. private-for-profit, public supported). Approximately 35% of FDC homes were licensed and 65% unlicensed. Subjects were recruited through parents rather than facilities.

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of intellectual performance. However, in view of the additional studies included in this review which did not report differences between FCD and CDC children, Fein and Clarke-Stewart's conclusion needs to be modified as follows: When differences in cognitive development have been discovered in day care studies, children in center programs have tended to score higher than children in family day care homes. However, any trend in the literature favoring CDC programs over FDC type care must be considered rather weak and tentative since almost one-half of the studies reported no differences in cognitive performance.

Fein and Clarke-Stewart (1983) believe that the superior intellectual performance of CDC children is the result of difference in the educational curriculum, caregiver interaction styles and caregiver availablility in the two environments. That is, center type care provides a more systematically educational environment than family day care situations. If their hypothesis is correct, the reason why some studies found differences in cognitive performance between CDC and FDC children while others did not may be possibly attributed to qualitative variations in the educational programs. Thus, in studies reporting no differences, the educational experiences in both types of care would be similar, while the quality of the educational environment would vary in studies where differences were discovered.

Unfortunately, adequate information was not provided in the research reports to make environmental comparisons between studies. However, an experiment by Goodman and Andrews (1981) tends to support the Fein and Clarke-Stewart hypothesis. Their

study was designed to test the effects of three different educational programs (high, medium, and low structure) and two types of delivery systems (teacher only and teacher plus day care mother) on the cognitive performance of 52 preschool children enrolled in family day care homes. The experimental family day care samples were combined and compared with a sample of children from group day care centers. The FDC subjects demonstrated greater and more consistent enhancement of cognitive functioning than the children who were enrolled in center type care that did not include one of the educational components. The study revealed that when environmental conditions favor FDC type care, the consequences also favor FDC homes. Thus the assumption that the consequences of day care depend upon the environmental conditions is supported.

Emotional Development

Seven of the studies included in this report measured some aspect of emotional functioning as a dependent variable. However, only two of the studies found significant differences between children enrolled in different child care situations. Clarke-Stewart and Gruber (1984) found that CDC children displayed more problems with attachment behavior than children in FDC programs. McCartney et al (1982) reported that CDC children were rated more emotionally maladjusted than FDC children. The five additional studies revealed no differences between CDC and FDC groups on measures of attachment (Cochran, 1977; Doyle & Somers, 1978; Portnoy & Simons, 1978), and ego-resiliency and control (Schiller, 1980).

Since FDC care more closely resembles home care than does CDC type care, the expectation that FDC participants experience fewer maternal separation and emotional adjustment problems appears to be reasonable. The results of the two studies which found differences in the effects of CDC and FDC care are consistent with this assumption. The findings of two studies are hardly sufficient to be conclusive, but they may suggest a weak trend which should not be overshadowed by the results of the other studies which do not favor either setting. Unfortunately, the research reports do not provide sufficient details to determine if the findings of the two studies differed from the others because of qualitative variations in the settings.

Social Development

The most inconsistent pattern of results emerges from the studies comparing the social behavior of participants in the two types of care. Nine of the studies included in this report measured one or more aspect of social development. The results of three studies were mixed. More specifically, within each of two studies (Clarke-Stewart and Gruber, 1984; Cochran, 1977) CDC subjects obtained better scores on some measures of social behavior, while FDC subjects demonstrated more social competence on other measures. The third study (Lippman & Grote, 1974) found differences favoring FDC subjects on three measures of social behavior, but no differences were found between FDC and CDC participants on two additional measures.

Out of the six additional studies, Saunders & Keister (1972) and Howes and Rubenstein (1978a and 1978b) found differences

favoring CDC participants, while Vroegh (1976) found differences favoring FDC types care. Three studies (Golden et al, 1978; Gunnarson, 1978; Winett et al, 1977) produced no significant differences between CDC and FDC participants on any measure of social behavior. Insofar as answering the question about which type of day care fosters superior social behavior, existing studies thus do not consistently support a trend favoring either FDC or CDC facilities.

Physical Development and Health

Relatively few studies have compared FDC and CDC participants on indices of physical growth and functioning. Four studies were found which assessed motor performance as a dependent variable in comparing the two types of care. Three of the studies (Clarke-Stewart, 1984; Saunders & Keister, 1972; Vroegh, 1976) found CDC children to be more advanced than FDC children in fine motor and manipulative skills. The fourth study (Gunnarson, 1978) revealed that CDC and FDC subjects did not differ significantly on locomotor performance and eye-hand coordination.

The New York Infant Day Care Study (Golden, et al, 1978) is apparently the only study in which comparisons of height and weight have been made between CDC and FDC subjects. The results of the study indicated that CDC and FDC subjects did not differ in physical growth at either 12, 18, 24 or 36 months of age. Even though the CDC infants were provided better nutrition and health care, those factors did not make a significant impact on height and weight gains. By age three, approximately 50% of the CDC

children as compared with 80% of the FDC children had not had a pediatric examination during the preceding six months.

Only one study was identified which dealt with the comparative incidence of illness in CDC and CDC facilities. Strangert (1976) studied the incidence of respiratory tract infections in children (6 months to 2 years) participating in CDC and FDC as well as children not attending any type of day care program. While the CDC children had more illnesses than children not attending day care, the FDC children had as many illnesses as children in CDC facilities. The study suggests that increasing the number of contacts of an infant in day care beyond four to six children (typical of FDC facilities) does not significantly increase the risk of respiratory tract disease.

Effects on Parents

The literature on the effects of day care on parents is severely limited. Only one study (Steinberg and Green, 1979) was identified which investigated this issue. The results of interviews with 109 mothers of children aged 2 to 3-1/2 years indicate that users of CDC facilities are most likely to report having become more knowledgeable as parents, feeling less harried, and finding more enjoyment in parenting. On the other hand, mothers who use FDC type care are happier with the discipline their child receives and are more likely to perceive that the child-rearing values of the caretaker are congruent with their own. Although the results are interesting and informative, one study is not adequate to form generalizations about how parents are affected by different types of child care.

Ecological Comparisons

The results of the six studies (Clarke-Stewart & Gruber, 1984; Cochran, 1977; Howes & Rubenstein, 1978a & 1978b; Prescott, 1972, 1973, 1978; Tyler & Dittman, 1980) which compared the characteristics of the physical and human environments in the two types of care present a picture of contrasts. With few exceptions, the studies were generally consistent in their descriptions of the day care settings. FDC tends to be more "homelike" and less child oriented than CDC care, and has fewer types of toys and educational materials (Clarke-Stewart & Gruber, 1984). FDC was viewed as offering more opportunity for one-to one caregiver contact (Cochran, 1977; Golden et al, 1978; Tyler & Dittman, 1980), smaller group size (Howes & Rubenstein, 1978a & 1978b), better adult-child ratios (Clarke-Stewart & Gruber, 1984) and more privacy (Howes & Rubenstein, 1978a & 1978b). Two of the studies (Howes & Rubenstein, 1978a & 1978b; Prescott, 1972, 1973, 1978) observed that FDC facilities provide more opportunities for contact with mixed age peers, but another study (Clarke-Stewart & Gruber, 1984) produced an opposite conclusion.

CDC programs apparently offer the advantage of more space and a greater variety of child sized equipment, play materials and a more clearly identifiable curriculum (Prescott, 1978). CDC settings have been observed as being less messy with fewer safety hazards than FDC facilities (Clarke-Stewart & Gruber, 1984; Golden et al, 1978). FDC caregivers tend to be more restrictive and negative in managing the behavior of the children (Howes &

Rubenstein, 1978a). The level of education of FDC providers is lower than that of CDC caregivers (Clarke-Stewart & Gruber, 1984).

An important consideration in comparing FDC and CDC settings is quality variations within as well as between the two types of care. Variations within each type of care can be as great as variations among types (Belsky, Steinberg & Walker, 1982). The National Day Care Home Study (NDCHS) (Fosberg, 1981) found that regulation (licensing), sponsorship and supervision are factors associated with quality control in FDC facilities. Generally, homes that were agency sponsored and regulated provided better quality care than homes that were simply registered/licensed or unregistered/unregulated. The findings of the NDCHS are consistent with other reports (Emlen, 1977; Hall & Weiner, 1977) which indicate that licensed and supervised home tend to have more favorable adult-child ratios than unlicensed homes.

Conclusions and Implications

On the basis of the studies currently available, it is not possible to make a case for the superiority of either type of day care insofar as developmental effects and ecological variations are concerned. For the most part, research reports are contradictory and inconclusive. Only two weak trends were discernable in the studies comparing the effects of FDC and CDC care on infants and young children. When differences between FDC and CDC children are reported on measures of cognitive and motor performance, the results tend to favor CDC type care. On the other hand, the differences in emotional development between FDC and CDC subjects tend to favor FDC type care. No consistent

pattern of differences favoring either type of care emerged from studies of social behavior on physical growth and health.

The results of the studies which compared the features of the physical and human environments associated with FDC and CDC facilities indicate that there are advantages and disadvantages inherent in each type of care. The ecological differences between the two settings are generally consistent with the two weak trends in studies reporting differential effects on the participants. Apparently CDC facilitites provide an environment which is more stimulating for cognitive and motor development, while FDC settings are more conductive to emotional security. Overall, however, on the basis of present evidence, no strong argument can be made for the ecological superiority of either type of care.

Center day care and family day care are both appropriate options for parents who need out-of-home care for their children. Variations in quality between and within type of care make it especially important for parents to examine specific facilities carefully before making child care placement decisions. In looking for a family day care home, parents should generally attempt to find a facility which is supported and monitored by a sponsoring agency.

Obviously a good day care center would be preferable to a poor day care home and vice versa. Given the choice between a good day care center and a good day care home, one could infer that the day care home would be preferable for an infant while the center facility might be preferable for a preschool age child. However, special caution should be exercised in drawing inferences

form existing studies because of the inconsistencies between and within reports as well as limitations in research methodology.

In the absence of dramatic and consistent differential effects of the various types of care, parents may be best advised to look at the ecological variations between settings and make placement decisions on the basis of their own child rearing goals and values. FDC arrangements apparently offfer more opportunities for one-to-one cargiver contact, smaller group size, privacy and a softer, more "homelike" environment. A FDC facility probably is more "messy" and has more safety hazards than a CDC facility. FDC caregivers tend to be more restrictive of children's behavior, and have less formal education than CDC caregivers. CDC programs generally offer more space for children's activities, a greater variety of educational toys and child-size equipment as well as a more structured schedule of activities approximating a "school-like" setting. The ideal child care arrangement would be one which provides the best of both worlds.

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